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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,696	11/12/2003	Herve Varin	033339/271282	8604

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EXAMINER	
CHARLES, MARCUS	

ART UNIT	PAPER NUMBER
3682	

DATE MAILED: 10/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/706,696	VARIN ET AL.	
	Examiner	Art Unit	
	Marcus Charles	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to the amendment filed 08-17-2006, which has been entered.

Claims 1-17 are currently pending

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-12 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitahama et al. (4,904,232) in view of White et al. (4,981,462). In claims 1-3, 5 and 15, Kitahama et al. discloses a transmission belt (figs. 2 and 3) comprising a plurality of v-ribs (15) having flat sides faces (19/20 and 119/120 respectively) and round ridges that present a convex curvilinear profile. Kitahama et al. also discloses the tip of the rib has a radius of curvature in the range of approximately 0.5 mm to 1.1 mm (col.3, lines 43-47) and the height of the rib is 2.5mm and the height of the inner portion, which is the vertical height of the curve section of the rib is approximately 0.8mm, which indicate that there vertical height of the flat surface of the rib is approximately 1.7 mm. However, since the included angle is approximately 20-80 degrees, the outside angle is approximately 50-60 degrees. Therefore, the height of the flat side is about 1.7/sin (90-1/2θ). One possible value is when θ is 80 degrees is approximately 1.73 mm which is within the range of the claimed invention. Kitahama et al. do not disclose the rib is form of a single elastomeric material as in claim 1 and the

ranges as set forth in claims 6-10 and 16-17. It is well known in the art that the radius of the tip of the rib and the length of the flat side of the rib is dependent on the size of the belt. However, such dimensions are subjective and relative to the size of pulley and belt. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the belt of Kitahama et al. so that the rib tip has a convex curvilinear radius, the height of the rib and the length of the flat side that fall within the ranges of the claimed invention, since it has been held that where the general conditions of a claim are disclose in the prior art, discovering the optimum ranges involves routing skill ion the art. *In re Aller, 105 USPQ 233.* Furthermore, it would have been a matter of obvious design choice based on the size of the belt and pulley such that one of ordinary skill in the would be able to make the radius of the convex curvilinear profile to be greater than 1.1 mm and less that or equal to 1.5 mm, the length of the flat side to be between 0.7mm and 1.7 mm and the height of the rib to be between 1.8 and 2.2 mm. In addition, White et al. discloses a poly v-belt having ribs made of a single elastomeric material. It is well known in the art for the rib of a poly-v belt to made from a single elastomeric material in order to avoid cracking that is associated with v-ribs made from different elastomeric materials. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the belt of Kitahama et al. so that it is made from a single elastomeric material in view of White et al. in order to avoid cracking that is associated with v-ribs made from different elastomeric materials.

In claim 4, note the curvilinear profile is a circle (fig. 2).

In claim 11, note the curvilinear profile is tangential to the side face at the point

of contact (22, 125 in fig. 2).

In claim 12, it is apparent that the belt could be K-type belt.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitahama et al. in view of White et al. as applied to claim 1, above, and further in view of Waugh (4,011,766). Kitahama et al. do not disclose that the V-ribs of the V-belt are machined or molded. Waugh discloses that it is well know for the V-ribs of the V-belt to be machined or molded (col.6, 22-33). Therefore, it would have been obvious to one of ordinary skill in art at the time of the invention to produce the v-ribs of Kitahama et al. device by molding or machine in view of Waugh in order to manufacturing cost, reduce production time and to avoid shaving/finishing after manufacturing.

Response to Arguments

3. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection set forth above.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Marcus Charles
Primary Examiner
Art Unit 3682
October 14, 2006